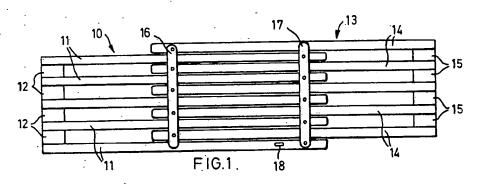
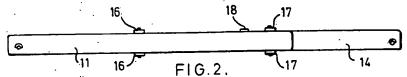
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- (58) Field of search Selected US specifications from IPC sub-class E04G

### (54) Extendable plank

(57) An extendable plank consisting of a number of interleaved parallel wooden slats constrained to slide relative to one another.

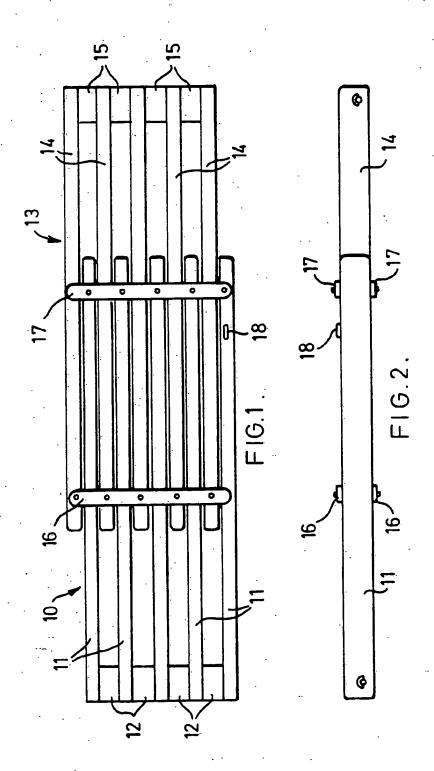




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### BUILDER'S AID

The invention relates to a builder's aid.

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When building or decorating or doing any jobs around a building, it is often necessary to climb up or to support articles above the ground. Ladders, planks, treasles and the like are commonly used and moved around the inside or outside of a building to points of need. An inconvenience arises when using planks because if they are too short, they have to be moved around often as building and/or decorating progresses. If they are ruitably long to avoid much moving, they are difficult to store, to transport and to manouvre especially inside a building.

It is an object to overcome this problem.

According to the invention there is provided a plank support arrangement comprising a first number of elongate spaced apart parallel members held in spaced apart relationship, a second number of like spaced apart parallel elongate members which slidingly fit between respective members of the first number of members, and clamping means for holding and supporting the members together while allowing them to slide relative to one another such that the first and second number of members form the plank support arrangement having a variable overall effective length.

The clamping means may be formed in two parts attached adjacent opposing respective ends of each of the members of the first and second members.

The clamping means may be arranged to prevent the members becoming totally disengaged by limiting the effective length of the plank support arrangement. Preferably, the clamping means is arranged to limit the overall length such that a minimum clamped

central overlap is always retained and overstrain of the members adjacent the central region is prevented for anticipated maximum normal loads.

The plank support arrangement may include third, fourth and more numbers of elongate spaced apart members connected in series to form a plank support arrangement having a substantial maximum overall effective length.

The members may be made of wood, plastics, metal or combinations thereof including reinforced plastics materials.

A plank support arrangement according to the invention will now be described by way of example with reference to the accompanying drawing in which:-

Figure 1 is a plan view; and

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Figure 2 is a side elevation.

Referring to the drawing, one set 10 of space apart parallel wooden slats consists of five slats 11 fixed and clamped together with spacers 12 at one end. A second similar set 13 consists of five slats 14 with spacers 15 at its one end. The slats 11 and 14 fit between and slide against each other such that the overall effective length of the plank arrangement can be varied from about the length of a single slat 11 or 14 to twice that length.

The slats 11 and 14 are held together by a clamping device consisting of two pairs of opposing plates 16 and 17. The plates 16 are bolted to the slats 14 and the plates 17 are bolted to the slats 11. A stop 18 protrudes above the surface of one of the slats 11 and bears against one of the plates 16 when that plate slides along the slats 11. This stops the plates 16 coming too close to the plates 17 or, in other words, limits to a chosen maximum the overall length to which the plank support arrangement

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can extend. More importantly, a set miniumum distance separates the plates when the plank arrangement is fully extended which ensures that the bending strength of the plank support arrangement does not fall below a safe level. Thus, undue strain cannot be placed on the slats 11 and 14 near their ends by normal anticipated loading.

In a typical embodiment of the invention the slats 11 and 14 are 1.5 metres long. The minimum effective length of the plank support arrangement is about 1.7 metres and the maximum effective length is about 2.8 metres. As such the plank arrangement can be easily carried in a car and around a house, and when fully or partially extended provides a usefully long support as a building aid or in use while decorating around a house.

The width and the related separation between the slats 11 and 14 is preferably chosen so that a standard wheelbarrow wheel will pass between the slats. This is intended to prevent the plank arrangement from being used as a ramp for a pushed wheelbarrow. Conventional or standard planks are often overstressed in practice by such use, where the wheelbarrow is fully loaded for example. Further, it can happen that an overstressed plank is not discarded but used later for other normal duties and fails catastrophically as a result of its previous overstrain. If the spacing between the slats is wider than a wheelbarrow wheel or the like, then plank arrangements of this invention cannot normally be overstressed and rendered dangerous in the manner just described or used as a wheelbarrow ramp.

### CLAIMS:

- l. A plank support arrangement comprising a first number of elongate spaced apart parallel members held in spaced apart relationship, a second number of like spaced apart parallel elongate members which slidingly fit between respective members of the first number of members, and clamping means for holding and supporting the members together while allowing them to slide relative to one another such that the first and second number of members form the plank support arrangement having a variable overall effective length.
- 2. A plank support arrangement according to Claim 1, in which the clamping means is formed in two parts attached adjacent opposing respective ends of each of the members of the first and second members.
- 3. A plank support arrangement according to Claim 1 or 2, in which the clamping means is arranged to prevent the members becoming totally disengaged by limiting the effective length of the plank support arrangement.
- 4. A plank support arrangement according to any one of Claims 1 to 3, including third, fourth or more numbers of elongate spaced apart members connected in series to form a plank support arrangement having a substantial maximum overall effective length.
- 5. A plank support arrangement according to any one of Claims 1 to 4, substantially as herein described with reference to the accompanying drawings.

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